



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,603	12/21/2001	Abbas Rashid	NEXSI-01221US0	6080

28863 7590 11/10/2005
SHUMAKER & SIEFFERT, P. A.
8425 SEASONS PARKWAY
SUITE 105
ST. PAUL, MN 55125

EXAMINER

ABELSON, RONALD B

ART UNIT PAPER NUMBER

2666

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,603

Applicant(s)

RASHID ET AL.

Examiner

Ronald Abelson

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/19/05, 7/15/05, 4/26/05, and 4/22/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-43 and 47-80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39, 40, 42, 43, 47-52, 55, 56, 60, 61, 63, 65, 66, 70-72, 74, 77, 79 and 80 is/are rejected.
- 7) ☐ Claim(s) 41, 53, 54, 57-59, 62, 64, 67-69, 73, 75, 76, and 78 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/19/05, 7/15/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Specification

1. The disclosure is objected to because of the following informalities:

Page 1 "Attorney Docket No. NEXSI-01222US" must be removed, an application number must be provided, and a status on the application must be provided.

Page 1 "Attorney Docket No. NEXSI-01223US" must be removed, an application number must be provided, and a status on the application must be provided.

Page 1 "Attorney Docket No. NEXSI-01224US" must be removed, an application number must be provided, and a status on the application must be provided.

Page 1 "Attorney Docket No. NEXSI-01225US" must be removed, an application number must be provided, and a status on the application must be provided.

Page 1 "Attorney Docket No. NEXSI-01226US" must be removed, an application number must be provided, and a status on the application must be provided.

Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 39, 40, 42, 43, 47, 48, 55, 79, and 80 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9 of copending Application No. 09/900,514 in view of Pelisster (US 6,654,369).

This is a provisional obviousness-type double patenting rejection.

Regarding claims 39 and 79, claim 9 of copending application 09/900,514 teaches all the limitations except a first port address table adapted to identify a plurality of

Art Unit: 2666

destinations supported by a first sink port in the set of sink ports.

Regarding claim 55, claim 9 of copending application 09/900,514 teaches all the limitations except a set of port address tables in communication with the set of sink ports, wherein each port address table in the set of port address tables is adapted to identify a plurality of destinations supported by a sink port in the set of sink ports.

Pelisser teaches a port address table / routing table in communication with a sink port, wherein the port address table is adapted to identify a plurality of destinations supported by the sink port (col. 1 lines 10-18).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of 09/900,514 by implementing a routing table in each of the sink ports. This modification can be performed in software. This modification would benefit the system by allowing the sink ports to transmit data to multiple destinations.

Regarding claim 40, a set of port address tables, wherein each port address table in the set of port address tables is adapted to identify a plurality of destinations supported by a sink port in the set of sink ports. Note, in the rejection of

Art Unit: 2666

claim 39, the examiner has shown a port address table is implemented in each sink port.

Regarding claim 42, the first port address table is adapted to store data identifying a plurality of destinations supported by the first sink port (Pelisster: col. 1 lines 10-18).

Regarding claim 43, each sink port in the set of sink ports is adapted to concurrently receive a plurality of data packets having different destination addresses (Pelisster: col. 1 lines 10-18). Note, regarding each sink port in the set of sink ports, in the rejection of claim 39, the examiner has shown a port address table is implemented in each sink port.

Regarding claim 47, the set of data rings includes a plurality of data rings. See claim 1 line 5 of 09/900,514, "set of data rings".

Regarding claim 48, the first sink port snoops data packets received by said set of input ports and determines whether to accept a first data packet based on a set of criteria, wherein the set of criteria includes the first data packet being targeted by having destination identified in the first port

Art Unit: 2666

address table (09/900,514 claim 9). Regarding a first port address table, note this limitation was addressed in the rejection to claim 39 above.

Regarding claim 80, a set of data rings internal to the crossbar switch / device to communicate the data packets from the set of input ports and the set of sink ports. See claim 1 line 5 of 09/900,514, "set of data rings".

4. Claim 49 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the combination of claim 9 of copending Application No. 09/900,514 and Pelisster (US 6,654,369) with respect to claim 48, in view of Peris (US 5,796,719), and Prasad (US 6,381,214).

The combination is silent on the first sink port having sufficient storage space for storing the first data packet.

Peris teaches an algorithm for determining whether to accept said data packets based on whether the sink port has sufficient resources to store said first data packet and second data packet (leaky bucket, counter at least the size of the packet, counter decremented by the size of the packet, col. 2

Art Unit: 2666

lines 16-24). Note, the packet is not allowed to pass if buffer space is not available.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of claim 9 of copending Application No. 09/900,514 and Pelisster by incorporating within the leaky bucket algorithm the algorithm of Peris. This modification can be performed in software. This modification would benefit the system by storing those packets that cannot currently be processed due to storage limitations. Therefore, the packets do not have to be discarded.

The combination of claim 9 of copending Application No. 09/900,514, Pelisster, and Peris is silent on a total number of packets being received by the first sink port not exceeding a predetermined number of packets.

Prasad teaches a method for determining whether the sink port is currently receiving a maximum allowable number of packets (fig. 1a box 8, cells arriving at an excessively high frequency may be discarded, col. 3 lines 12-20, cell k non-conforming and discarded, col. 4 lines 41-45).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Pelisster, Bensaou, and Peris by incorporating within the leaky

Art Unit: 2666

bucket algorithm the algorithm of Prasad. This modification can be performed in software. This modification would benefit the system by processing the packets currently in the sink port and discarding only the latest arriving packets in the event the sink port is receiving packets at a rate about its capacity.

5. Claim 50-52, 56, and 60-61 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the combination of claim 9 of copending Application No. 09/900,514 and Pelisster (US 6,654,369) with respect to claims 39 and 56 respectively, in view of claim 13 of copending Application No. 09/900,514.

Regarding claims 50 and 60, the combination is silent on an interface in communication with the set of input ports to receive data from data packets, a storage buffer coupled to the interface to receive and store the data, and an output port coupled to the storage buffer to receive the data from the storage buffer and transmit the data on a communication link.

Claim 13 of copending Application No. 09/900,514 teaches an interface in communication with the set of input ports to receive data from data packets, a storage buffer coupled to the interface to receive and store the data, and an output port

Art Unit: 2666

coupled to the storage buffer to receive the data from the storage buffer and transmit the data on a communication link.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of claim 9 of copending Application No. 09/900,514 and Pelisster to modify the system by including with the sink port the interface, storage buffer, and output buffer of 09/900,514 claim 13. This modification can be performed according to the teachings of 09/900,514 claim 13. This modification would benefit the system by providing the sink port with a means to receive, process, and transmit the data.

Regarding claims 51 and 61, the storage buffer is adapted to concurrently receive a plurality of data packets. See claim 50 above.

Regarding claim 52, the interface is adapted to access the first port address table to determine whether a data packet has a destination address corresponding to a destination identified in the first port address table. Note, the limitation of a first port address table has been addressed in the rejection to claim 39.

Art Unit: 2666

Regarding claim 56, the set of port address tables includes a first port address table adapted to store data identifying a plurality of destinations supported by a first sink port in said set of sink ports (Pelisster: col. 1 lines 10-18). Note, in the rejection of claim 55, the examiner has shown a port address table is implemented in each sink port.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 65 and 79 are rejected under 35 U.S.C. 102(e) as being anticipated by Pelisster (US 6,654,369).

Art Unit: 2666

Pelisstter teaches a set of input ports receiving a set of data packets (fig. 1 switch 114, col. 3 lines 39-44).

Pelisstter teaches a sink port / output port in a set of sink ports, accepting data packets in said set of data packets (fig. 1, col. 3 lines 39-44). Note, switch 114 has multiple input and output ports.

Pelisstter teaches a sink port / device determining that a first data packet has a first destination supported by the sink port (entry for each known destination address, col. 1 lines 10-18).

Pelisstter teaches the sink port / device accepting the first data packet (cells transit the network, col. 1 lines 10-20). Note, in order for the packet/cell to be transited from the device, the device must accept the packet/cell.

Pelisstter teaches a sink port / device determining that a second data packet has a second destination supported by the sink port, wherein the first destination is different than the second destination (entry for each known destination address, col. 1 lines 10-18).

Pelisstter teaches the sink port / device accepting the second data packet (cells transit the network, col. 1 lines 10-

Art Unit: 2666

20). Note, in order for the cells to transit through the device, the device must collect the cell.

Pelisstter teaches the sink port / device collecting data for first data packet and the sink port collecting data for the second data packet concurrently with collecting data for the first data packet (forwarding database, various algorithms that permit each of the devices to learn routes throughout the network, col. 1 lines 18-23). The examiner corresponds the applicant's collecting data with the information that permits each of the devices to learn routes in the reference.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2666

9. Claims 55, 56, 60, 61, 63, 65, 66, 74, and 79-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson (US 6,728,206) in view of Pelisster (US 6,654,369).

Regarding claims 55 and 79, Carlson teaches a cross-bar switch (fig. 3 switch 350, col. 6 lines 6-11).

Carlson teaches a set of input ports to receive data packets (fig. 3 boxes 301, 303, 305, 307, 309, 311, col. 6 lines 54-56).

Carlson teaches a set of sink ports in communication with said set of input ports to receive and forward data packets (fig. 3 boxes 302, 304, 306, 308, 310, 312, col. 6 lines 54-56).

Carlson teaches a set of data rings internal to the crossbar switch to communicate the data packets from said set of input ports to said set of sink ports (fig. 3 rings 370, 390, col. 6 lines 21-23, 60-67).

Carlson is silent on a set of port address tables in communication with said set of sink ports, wherein each port address table in said set of port address tables is adapted to identify a plurality of destinations supported by a sink port in said set of sink ports.

Pelisstter teaches a port address table / routing table in communication with a sink port, wherein the port address table is adapted to identify a plurality of destinations supported by the sink port (col. 1 lines 10-18).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Carlson by implementing a routing table in each of the sink ports (Carlson: fig. 3 boxes 302, 304, 306, 308, 310, 312). This modification can be performed in software. This modification would benefit the system by allowing the sink ports to transmit data to multiple destinations.

Regarding claims 65 and 74, Carlson teaches a set of input ports to receiving a set of data packets (fig. 3 boxes 301, 303, 305, 307, 309, 311, col. 6 lines 54-56).

Carlson teaches a set of sink ports, accepting data packets in said set of data packets (fig. 3 boxes 302, 304, 306, 308, 310, 312, col. 6 lines 54-56).

Regarding claim 74, Carlson teaches transferring data packets from set of input ports to a set of data rings internal to the switch (fig. 3, rings 370, 390, col. 6 lines 21-23, 60-67) in communication with a set of sink ports of the switch

Art Unit: 2666

(fig. 3 boxes 302, 304, 306, 308, 310, 312, col. 6 lines 54-56).

The examiner corresponds the applicant's sink ports with the "other components" in the reference.

Regarding claims 65 and 74, Carlson is silent on said sink port determining that a first data packet has a first destination supported by the sink port.

Pelisstter teaches a sink port / device determining that a first data packet has a first destination supported by the sink port (entry for each known destination address, col. 1 lines 10-18).

Carlson is silent on the sink port accepting the first data packet.

Pelisstter teaches the sink port / device accepting the first data packet (cells transit the network, col. 1 lines 10-20). Note, in order for the packet/cell to be transited from the device, the device must accept the packet/cell.

Carlson is silent on said sink port determining that a second data packet has a second destination supported by the sink port, wherein the first destination is different than the second destination.

Pelisstter teaches a sink port / device determining that a second data packet has a second destination supported by the

Art Unit: 2666

sink port, wherein the first destination is different than the second destination (entry for each known destination address, col. 1 lines 10-18).

Carlson is silent on the sink port accepting the second data packet.

Pelisser teaches the sink port / device accepting the second data packet (cells transit the network, col. 1 lines 10-20). Note, in order for the packet/cell to be transited from the device, the device must accept the packet/cell.

Carlson is silent on the sink port collecting data for first data packet and the sink port collecting data for the second data packet concurrently with collecting data for the first data packet.

Pelisser teaches the sink port /device collecting data for first data packet and the sink port collecting data for the second data packet concurrently with collecting data for the first data packet (forwarding database, various algorithms that permit each of the devices to learn routes throughout the network, col. 1 lines 18-23). The examiner corresponds the applicant's collecting data with the information that permits each of the devices to learn routes in the reference.

Therefore it would have been obvious to one of ordinary

Art Unit: 2666

skill in the art, to modify the system of Carlson by implementing a routing table in each of the sink ports (Carlson: fig. 3 boxes 302, 304, 306, 308, 310, 312). This modification can be performed in software. This modification would benefit the system by allowing the sink ports to transmit data to multiple destinations.

Regarding claim 56, the set of port address tables includes a first port address table adapted to store data identifying a plurality of destinations supported by a first sink port in said set of sink ports (Pelisster: col. 1 lines 10-18). Note, in the rejection of claim 55, the examiner has shown a port address table is implemented in each sink port.

Regarding claim 60, Carlson teaches the first sink port includes a ring interface coupled to said set of data rings to receive data from data packets (fig. 3 box 302, col. 6 lines 54-67).

Carlson teaches a storage buffer coupled to said ring interface to receive and store said data (data can be copied to any node in crossbar bus network, col. 7 lines 52-59).

Carlson teaches an output port coupled to said storage buffer to receive said data from storage buffer and transmit

Art Unit: 2666

said data on a communications link (fig. 3: see link from box 302 to 30).

Regarding claim 61, Carlson teaches the storage buffer is adapted to concurrently receive a plurality of data packets (Carlson: data can be copied to any node in crossbar bus network, col. 7 lines 52-59).

Regarding claim 63, the first sink port includes a configuration block adapted to receive configuration packets (Carlson: programmed input/output messages, col. 3 lines 38-42, col. 5 lines 32-37).

Regarding claims 66 and 80, transferring a set of data packets from the set of input ports to a set of data rings internal to a switch and in communication with the set of sink ports (Carlson: fig. 3 input ports A-F, rings 370, 390, col. 6 lines 60-67).

10. Claims 70-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelisster as applied to claim 65 above, in

Art Unit: 2666

view of Bensaou (US 6,934,297), Peris (US 5,796,719), and Prasad (US 6,381,214).

Regarding claim 70, Pelisster is silent determining whether a sink port is enabled to receive data packets.

Bensaou teaches a method wherein a sink port determines that it is enabled to receive data packets and responds⁹ that it is enabled. Specifically Bensaou teaches issuing a Request-to-Send 'RTS' and Clear-to-Send 'CTS messages between a pair of transmitting and receiving communication units, prior to the transmission of a packet (col. 1 lines 53-56). Note, the receiving communication unit will not issue a clear to send if it is not enabled to receive data packets.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Pelisster by having a transmitting device send a RTS packet to the sink port and waiting for a CTS packet from the multi-sink port before sending the packet (Bensaou: col. 1 lines 53-56). This modification can be performed according to the teachings of Bensaou. This modification would benefit the system by ensuring that the sink port is enabled to accept the data packet.

The combination of Pelisster and Bensaou is silent on determining whether the sink port has sufficient resources to store said first data packet and second data packet.

Peris teaches an algorithm for determining whether to accept said data packets based on whether the sink port has sufficient resources to store said first data packet and second data packet (leaky bucket, counter at least the size of the packet, counter decremented by the size of the packet, col. 2 lines 16-24). Note, the packet is not allowed to pass if buffer space is not available.

The combination of Pelisster and Bensaou is silent on determining whether said first and second packets have a number of bytes within a predetermined range.

Peris teaches determining whether said first and second packets have a number of bytes within a predetermined range (value of counter at least the size of the packet, col. 2 lines 16-24).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Pelisster and Bensaou by incorporating within the leaky bucket algorithm the algorithm of Peris. This modification can be performed in software. This modification would benefit the system by storing those packets that cannot currently be

Art Unit: 2666

processed due to storage limitations. Therefore, the packets do not have to be discarded.

The combination of Pelisster, Bensaou, and Peris is silent on determining whether the sink port is currently receiving a maximum allowable number of packets.

Prasad teaches a method for determining whether the sink port is currently receiving a maximum allowable number of packets (fig. 1a box 8, cells arriving at an excessively high frequency may be discarded, col. 3 lines 12-20, cell k non-conforming and discarded, col. 4 lines 41-45).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Pelisster, Bensaou, and Peris by incorporating within the leaky bucket algorithm the algorithm of Prasad. This modification can be performed in software. This modification would benefit the system by processing the packets currently in the sink port and discarding only the latest arriving packets in the event the sink port is receiving packets at a rate about its capacity.

Regarding claim 71, as shown previously, said sink port issuing a rejection signal if said sink port determines not to accept said data packet, wherein said rejection signal

Art Unit: 2666

terminates further reception of said data packet by said sink port (Prasad: fig. 1a box 8, col. 4 lines 41-45). The examiner corresponds applicant's rejection signal with the signal in the reference that informs the device to discard the packet.

Regarding claim 72, said sink port transmitting said data packets collected (Pelisster: cells transit the network, col. 1 lines 10-20).

11. Claim 77 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Carlson and Pelisster as applied to claim 74 above, in view of Bensaou (US 6,934,297), Peris (US 5,796,719) and Prasad (US 6,381,214).

Regarding claim 77, the combination of Carlson and Pelisster is silent determining whether a sink port is enabled to receive data packets.

Bensaou teaches a method wherein a sink port determines that it is enabled to receive data packets and responds that it is enabled. Specifically Bensaou teaches issuing a Request-to-Send 'RTS' and Clear-to-Send 'CTS messages between a pair of transmitting and receiving communication units, prior to the transmission of a packet (col. 1 lines 53-56). Note, the

Art Unit: 2666

receiving communication unit will not issue a clear to send if it is not enabled to receive data packets.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Carlson and Pelisster by having a transmitting device send a RTS packet to the sink port and waiting for a CTS packet from the multi-sink port before sending the packet (Bensaou: col. 1 lines 53-56). This modification can be performed according to the teachings of Bensaou. This modification would benefit the system by ensuring that the sink port is enabled to accept the data packet.

The combination of Carlson, Pelisster and Bensaou is silent on determining whether the sink port has sufficient resources to store said first data packet and second data packet.

Peris teaches an algorithm for determining whether to accept said data packets based on whether the sink port has sufficient resources to store said first data packet and second data packet (leaky bucket, counter at least the size of the packet, counter decremented by the size of the packet, col. 2 lines 16-24). Note, the packet is not allowed to pass if buffer space is not available.

Art Unit: 2666

The combination of Carlson, Pelisster and Bensaou is silent on determining whether said first and second packets have a number of bytes within a predetermined range.

Peris teaches determining whether said first and second packets have a number of bytes within a predetermined range (value of counter at least the size of the packet, col. 2 lines 16-24).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Carlson, Pelisster and Bensaou by incorporating within the leaky bucket algorithm the algorithm of Peris. This modification can be performed in software. This modification would benefit the system by storing those packets that cannot currently be processed due to storage limitations. Therefore, the packets do not have to be discarded.

The combination of Carlson, Pelisster, Bensaou, and Peris is silent on determining whether the sink port is currently receiving a maximum allowable number of packets.

Prasad teaches a method for determining whether the sink port is currently receiving a maximum allowable number of packets (fig. 1a box 8, cells arriving at an excessively high

Art Unit: 2666

frequency may be discarded, col. 3 lines 12-20, col. 4 lines 41-45).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Carlson, Pelisster, Bensaou, and Peris by incorporating within the leaky bucket algorithm the algorithm of Prasad. This modification can be performed in software. This modification would benefit the system by processing the packets currently in the sink port and discarding only the latest arriving packets in the event the sink port is receiving packets at a rate about its capacity.

Allowable Subject Matter

12. Claims 41, 53, 54, 57-59, 62, 64, 67-69, 73, 75, 76, and 78 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2666

Response to Arguments

13. Applicant's arguments with respect to claims 39-43 and 47-80 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165.. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RA
Ronald Abelson
Examiner
Art Unit 2666

Ron Abelson
